

New England Biolabs Product Specification

<i>Product Name:</i>	<i>Purified BSA</i>
<i>Catalog #:</i>	<i>B9001S</i>
<i>Concentration:</i>	<i>10 mg/ml</i>
<i>Shelf Life:</i>	<i>36 months</i>
<i>Storage Temp:</i>	<i>-20°C</i>
<i>Composition (1X):</i>	<i>20 mM KPO₄, 50 mM NaCl, 0.1 mM EDTA, 5 % Glycerol, (pH 7.0 @ 25°C)</i>
<i>Specification Version:</i>	<i>PS-B9001S v1.0</i>
<i>Effective Date:</i>	<i>28 Jul 2017</i>

Assay Name/Specification (minimum release criteria)

Endonuclease Activity (Nicking) - A 50 µl reaction in NEBuffer 2 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 50 µg of Bovine Serum Albumin (BSA) incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.

Functional Testing (Restriction Digest, BSA, Buffer) - A 50 µl reaction in NEBuffer 4 plus 100 µg/ml Bovine Serum Albumin containing 1 µg of Lambda DNA and 1 unit of ClaI incubated for 1 hour at 37°C results in complete digestion of the substrate DNA as determined by agarose gel electrophoresis.

Non-Specific DNase Activity (16 Hour) - A 50 µl reaction in NEBuffer 2 containing 1 µg of PhiX174-HaeIII DNA and a minimum of 50 µg of Bovine Serum Albumin (BSA) incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.

Protein Concentration (A280) - The concentration of Bovine Serum Albumin (BSA) is 10 mg/ml +/- 10% as determined by UV absorption at 280 nm. Protein concentration is determined by the Pace method using the extinction coefficient of 42,925 and molecular weight of 66,464 daltons for Bovine Serum Albumin (BSA) (Pace, C.N. et al. (1995) Protein Sci., 4, 2411-2423).

RNase Activity (Extended Digestion) - A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 10 µg of Bovine Serum Albumin is incubated at 37°C. After incubation for 4 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.

* The BSA in this product has been granted an EDQM "Certificate of Suitability" from the European Directorate for the Quality of Medicines (# R1-CEP-2003-204-Rev00) and has been granted a USDA Certificate for Export of Bovine Blood Plasma/Serum for Manufacture into Pharmaceutical Products.



Date 28 Jul 2017

Derek Robinson
Director of Quality Control

